UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,215	12/20/2001	Stephen L. Muench-Casanova	706126US1	7769

24938 7590 07/12/2005	EXAMINER
DAIMLERCHRYSLER INTELLECTUAL CAPITAL CORPORATION	CHEN, ALAN S

CIMS 483-02-19	ART UNIT	PAPER NUMBER
800 CHRYSLER DR EAST	2182	
AUBURN HILLS, MI 48326-2757		

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/034,215	MUENCH-CASANOVA ET AL.
	Examiner	Art Unit	
	Alan S. Chen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>31 March 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-7</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-7</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   35 USC 112 rejection has been withdrawn.

2.   Applicant's arguments filed 03/31/2005 have been fully considered but they are not

persuasive.

3.   Applicant argues the lack of both a wired and wireless downloading capability to

reprogram a memory module in Nangle, where Nangle is only limited to wireless downloads.

Examiner does not agree and believes Nangle gives sufficient evidence that a wired download

preceded a wireless download.

First, it should be established that nowhere in the claims language does the applicant

require the wired bus to be existent on the printed circuit board/integrated circuit device that the

flash module resides. For instance, the flash module, itself, can be preprogrammed somewhere

prior to integrating the flash module onto the printed circuit board, whereupon the only means of

updating the flash module is by wired means. In Claim 6, for instance, the wired bus can simply

be the bus/interface resident *in the* flash module that is attached by wire for first/initial

programming on a separate and independent programming station, *before* the flash module is

placed on the PCB or integrated with other components. Once the flash module is placed on the

PCB or integrated with the other circuit components the flash module interacts with, it is then

that the only means for updating the flash module is wirelessly. The claim language simply does

not require both wired and wireless updating of the flash module once it is integrated onto the

PCB or integrated with the other components. It only requires wired and wireless downloading

at some point in time and not limiting the downloading at a fixed place.

Next, with the above in mind, in the context of Nangle, the Examiner believes the claims

are disclosed. Nangle discloses updating an initial programming on nonvolatile memory

wirelessly (Column 4, lines 15-20). Nangle indicates the initial programming can be

preprogrammed, not via wireless means, e.g., through a wired means in various parts of his

disclosure. Column 4, lines 19-30 states that "...the first software version is preprogrammed or

simply not overwritten" and then *afterwards*, additional programming is downloaded wirelessly

via RF means. This clearly suggests the preprogramming being done non-wirelessly. Further in

Column 4, lines 52-60, Nangle states "...device may include a first level of programming before

it is shipped to an OEM. The first level programming may comprise a boot-up algorithm that

allow the device to turn on and receive additional programming...". Again, this clearly suggests

that the necessary basic instructions were downloaded via wire in order for later wireless updates

to be enabled. Further in Column 5, lines 35-45, Nangle states "...method includes providing a

wireless device 210 comprising a nonvolatile memory 216, a first programming disposed in

nonvolatile memory 216, and peripheral antenna 218...the inventive method further includes

transmitting second programming to the wireless device 210, wherein the second programming

is received at peripheral antenna 218...". Clearly the first programming is not over wireless

means but preprogrammed via wired means. The first/original/source information cannot be

originally obtained via wireless means b/c the nonvolatile memory must have initial instructions

on how to handle wireless information. Column 6, lines 65-Column 7, lines 3 states, "a non

volatile memory coupled to the peripheral RF receiver in which a first programming is stored,

the first programming to enable each computing device to turn on and receive OEM code

particular to each computing device...", the OEM code transmitted by RF means (Column 6,

lines 55-58). Again, this only confirms the first source programming was done over wired

means, afterwards being integrated into the integrated device, the first programming enabling

wireless reception and reprogramming.

4.   Examiner's rejection is maintained and reiterated below.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

   1.   Determining the scope and contents of the prior art.
   2.   Ascertaining the differences between the prior art and the claims at issue.
   3.   Resolving the level of ordinary skill in the pertinent art.
   4.   Considering objective evidence present in the application indicating obviousness
           or nonobviousness.

7.   This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8.   Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted

prior art in view of Nangle and Intel.

The admitted prior art at [0001-0004] (referring to published application 2003/0120911) sets

forth that it is old and well known to program a programmable module via a slow hard wired

J1850 communications bus, wherein the programming would require 13 minutes at the slow

speed, wherein the assembly line allows 45 seconds at an assembly station. Thus the admitted

prior art admits the programming of a programmable module on an assembly line via a slow

hard-wired interface, wherein the use of the slow hard-wired bus for

programming/reprogramming creates a "bottleneck" on the assembly line due to the time needed

to perform the programming/reprogramming. What is lacking is the use of a faster wireless

protocol to flash the memory more quickly, given an initial load of the wireless protocol by the

wired bus.

Nangle, in the same art of memory programming and reprogramming, has identified the same

problem in column 1, that there is a well known problem of the slow downloading of memory

programming data via a physical port connection, which is the same as the admitted prior art

wired bus interface. Thus it is explicitly stated in lines 44-62 that the use of the physical port

acts to increase the likelihood of a slower manufacturing time. Thus a bottleneck is created in

the production process by programming the flash memory (i.e. flashing) via the conventional

physical port and physical data link. Thus Nangle teaches a way to overcome this manufacturing

bottleneck by using an RF programming protocol, such as BLUETOOTH(RTM) for flash

programming per columns 2-5. While columns 3-4 call for the removal of the physical port for

the practice of the improvement, but it is clear that column 5, lines 18-35 state that it is

conventional to have a wireless device with a physical connection for downloading operating

code into a nonvolatile memory. While the desired manner to practice the improvement, it is

clear that the physical port can only be eliminated if it is not needed for further use. Clearly, if

the physical port is needed in the future, the teachings of Nangle clearly apply to the

programming that causes the bottleneck. If the bottleneck is caused by the post initial

programming, then Nangle clearly teaches to provide the post-initial programming via the

wireless and faster BLUETOOTH (RTM) wireless protocol. Nangle only teaches the removal of

the physical port if it is not needed, per the design criteria of column 5, lines 18-35. Clearly if

the existing design requires the use of the physical port, then it is to be left intact, wherein the

subsequent programming is done in a wireless manner. This is clearly summed up in column 5,

lines 14-16, in which the improvement is called to be a "retrofit" of an existing device. Hence a

"retrofit" means that an existing device has an existing wired physical port and the "retrofit" is to

provide the ability to be flashed by a wireless and faster protocol. It is to be noted that column 4,

lines 13+ set forth a phased programming approach. Here it is clearly set forth that a two level

programming is desired, with a first software version is preprogrammed and the second version

is added via the RF download. Column 4 continues to state that the first level of programming is

provided before shipping to an OEM wherein the first level has a boot-up algorithm to allow the

device to turn on and receive the first or second software versions. Further, a second level may

be provided for a wireless device application into BIOS for the wireless functions. Thus the post

initial programming, at a minimum, is done via the wireless link. Column 5, lines 49+ also make

for the possibility of the first programming to prepare the wireless device to receive memory

array configuration second programming. This means that the first programming prepares the

wireless device to receive the secondary programming via the BLUETOOTH (RTM). Clearly, a

preparation means that the device has to be programmed in the conventional manner, as a

preparation for the wireless device means that it is prior to the stage in which the RF can be

received by the device. Thus, the teachings apply to preparing a device to receive RF

programming via a physical programming, as this would fall under the explicitly taught "retrofit"

as a "retrofit" in this aspect would mean that an existing device with a convention physical port

would be "retrofitted" with a wireless capability and prepared via the physical port so as to

enable subsequent secondary programming via the RF protocol. Summed up in column 6, lines

3-17, one finds again a "retrofit" in which an existing device is to be programmed for a new

feature. The new programming is downloaded via the RF interface.

The INTEL article shows the various components of the BLUETOOTH (RTM) architecture, to

include the protocol and its stacks and layers. Kernel modes are needed per page 5, wherein the

stacks are shown in Figure 3 and the use of BLUETOOTH (RTM) as an open protocol are shown

at page 8.

Thus it would have been obvious to one having ordinary skill in the art at the time that the

invention was made to modify the admitted prior art by the teachings of Nangle and INTEL for

the express purpose of avoiding a manufacturing bottleneck by downloading secondary

programming via an open RF protocol, such as BLUETOOTH (RTM), as this is a faster protocol

than the conventional physical port method. INTEL shows the types of information to be

included with the preparation programming of Nangle to include stacks and kernels in order to

prepare an existing device for RF flashing. As pointed out above, Nangle prefers the elimination

of the physical port, but in a "retrofit", the existing port would not be removed, but the wireless

added to avoid the bottleneck in the manufacturing process.   Consistent with the combined

teachings, one of ordinary skill in the art would retrofit an existing programmable device with an

existing physical port with an RF flashing capability by providing an initial preparatory

programming via the wired (existing) physical port to enable additional secondary programming

via an RF (faster protocol like BLUETOOTH) interface. This is consistent with Nangle's retrofit

concept, to provide an initial capability by the manufacturer with additional programming to be

added via the RF by the OEM. Thus the second programming represents additional

programming such as applications and program software to be installed by the OEM, thus

requiring that the initial preparatory programming be smaller than what is added by the OEM, as

the initial programming is just designed to get the device to download additional programming

and functionality in a wireless manner. Per Nangle, the wireless protocol is faster at about

700KBps. Nangle explicitly teaches that the wireless is faster than the wired. AS Nangle and

the admitted prior art set forth a manufacturing environment, assembly lines being explicitly

mentioned in the admitted prior art, it is obvious subject matter that in a retrofit situation (such as

that of the admitted prior art J1850 port that is subsequently needed in the vehicle by the

programmable module), that the retrofit will leave the physical port in place and provide the

preparatory programming via this port in order to allow faster flashing at a subsequent OEM

station. Thus the initial programming is done in the conventional manner via the conventional

physical (i.e. wired) port, as there is no bottleneck in the assembly line process at this point.

Subsequent bottlenecks of the admitted prior art are avoided by "retrofitting" via Nangle (and the

details of the BLUETOOTH components needed per INTEL) and subsequent secondary and

faster downloading via the RF interface. Thus the initial programming is done via a flashing at a

first station via the existing physical port and the secondary programming is done via the

"retrofitted" RF interface in order to avoid the manufacturing bottleneck of slowed

manufacturing times, as expressly taught by Nangle to be the solution to the problem. A

"retrofit" does not entail a removal of parts, but the addition of new parts or capabilities not

previously available at the time of original manufacture (per conventional dictionary meanings).

Thus the existing admitted prior art devices that have and require the use of the J1850 physical

port are to be modified in a "retrofit manner" per Nangle (and the protocol details of INTEL) to

allow for the subsequent programming (i.e. flashing) via the faster open FR protocol to avoid the

manufacturing process bottlenecks caused by the flashing of large amounts of memory via a slow

physical interface, as expressly taught to be the solution by Nangle to the same problem faced by

applicants.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing
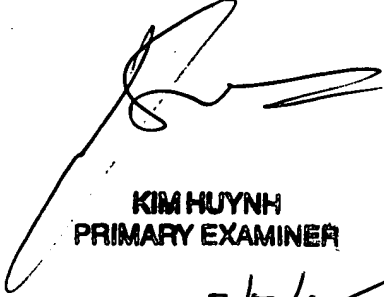
date of this final action.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The

examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
07/05/2005

KIM HUYNH
PRIMARY EXAMINER

7/7/05